

REMARKS**I. Status of the Claims:**

Claims 1-27 and 86 were pending in the application prior to this response. Independent claims 1 and 15 and dependent claims 7, 11-14, 22 and 24-27 have been amended, and dependent claims 4 and 18 have been canceled. No new matter has been introduced.

II. Response to Claim Rejections Under 35 U.S.C. §103:

Claims 1, 3, 5, 8, 15, 17, 19, 21 and 86 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Orito, in view of Arimoto and Sugiura, all of record.

Claims 4, 7, 9-14, 18, 20 and 22-27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Orito in view of Arimoto, Sugiura and Kamisawa, all of record.

Claims 2, 6 and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Orito in view of Arimoto, Sugiura and Ohta, all of record.

Applicants have amended independent claims 1 and 15 to further emphasize that the image sensing unit in the claimed invention includes an image sensor which has a plurality of photoelectric conversion element arrays for respectively photoelectrically converting light of a plurality of colors, and that the image sensing characteristic indicates spatial positional deviations of the plurality of colors of pixel signals obtained by said image sensor. These limitations were previously recited in at least dependent claims 4 and 18, the contents of which have herein been incorporated into independent claims 1 and 15, respectively.

More specifically, in at least one embodiment of the present invention, an original may be read using a three-line color sensor having three lines of diodes including R, G and B.

RB color misregistration characteristic data CR [8:0], which represents color misregistration of an R signal with respect to a B signal, and GB color misregistration characteristic data CG [8:0], which represents color misregistration of a G signal with respect to a B signal, may be stored in backup RAM 108. Image reading apparatus 100 may then retrieve stored RB color misregistration characteristic data CR [8:0] and GB color misregistration characteristic data CG [8:0] from backup RAM 108, which is then provided to processing apparatus 150. Image processing apparatus 150 may then perform color misregistration correction based on the retrieved RB color misregistration characteristic data CR [8:0] and GB color misregistration characteristic data CG [8:0]. Accordingly, it is possible to obtain image data of the original having no spatial color misregistration when image signals of a plurality of colors obtained from the image sensor includes spatial misregistration.

Applicants now address the obviousness rejection as set forth by the Examiner in view of Orito, Arimoto and Sugiura, all of record. As noted by the Examiner in page 9, lines 18-21 of the September 27, 2006, Final Office Action, "Orito in view of Arimoto and Sugiura does not disclose expressly that the image sensing characteristic indicates spatial positional deviations of the plurality of colors of pixel signals by said image sensor." Applicants concur with this statement by the Examiner, and further contend that Kamisuwa does not cure this deficiency.

The Kamisuwa reference discloses the reading of zig-zag shaped adjustment mark 212 by CCD line sensor 23, detecting positions of intersections between the scanning line of CCD line sensor 23 and line segments 212a, 212b... of zig-zag shaped adjustment mark 212 on the basis of output levels from CCD line sensor 23, detecting positional errors of CCD line sensor 23 both in the main scanning direction and the sub-scanning direction, and the inclination of CCD line sensor 23, etc. as shown, for example, in Fig. 5.

However, Kamisuwa does not recite or imply a structure capable of detecting "spatial positional deviations of the plurality of colors of pixel signals obtained by said image sensor" (e.g., RG and GB as discussed above) or correcting the spatial deviation. Furthermore, Fig. 8 does not show positional deviations between a plurality of colors (R, G and B), but instead merely detects an output level at the intersections a-c between the scanning line and the line segments 212a - 212c. Therefore, the Kamisuwa system does not recite or imply obtaining image sensing characteristics which show spatial deviations of image signals of a plurality of colors obtained by an image sensor, as claimed in the present invention.

In view of the reasons as set forth above, Applicants respectfully assert that Orito, Arimoto, Sugiura, and Kamisuwa, taken alone or in combination, do not teach, suggest, or otherwise render obvious the invention as recited in at least independent claims 1 and 15. Therefore, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection be withdrawn.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Response to Deposit Account No. 13-4500, Order No. 1232-4677.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-4677.

Respectfully submitted,
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